

Notice of Allowability**Application No.**

10/766,431

Applicant(s)

VRONAY ET AL.

Examiner

Phillip H. Nguyen

Art Unit

2191

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 7/17/2009.
2. ☒ The allowed claim(s) is/are 1-3,5,7-9,11-22,24-27,29-31,35,36 and 39-45.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 20091029.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

1. Claims 1-3, 5, 7-9, 11-22, 24-27, 29-31, 35, 36, 39-45 are allowed.

Examiner's Amendment

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.
3. Authorization for this examiner's amendment was given in a telephone interview with David S. Thompson on 10/23/2009. This examiner is necessitated to clarify the claimed invention.
4. Claims 1, 8, 27, and 29 have been amended below.

1. (Currently Amended) An interactive computer-implemented system for specifying and executing temporal order events, comprising a processor executing:
a constraint component that receives, from a user, loose temporal constraints associated with a plurality of events, wherein the loose temporal constraints specify information about execution of the plurality of events, and wherein the loose temporal constraints specify relative timing information but not exact literal times that ~~that~~ each of the plurality of events is to be executed;

a system information component that receives execution system information comprising one or more of available memory, cache coherency, data throughput or number of processors; and

an order component that determines a plurality of event execution orders in accordance with the loose temporal constraints and via utility-based analysis of the execution system information, and selects an optimal event execution order from the plurality of event execution orders based on the execution system information; wherein:

each of the plurality of event execution orders is consistent with the loose temporal constraints supplied by the user;

each of the plurality of execution orders specifies exact literal times each of the plurality of events is executed;

the exact literal times are consistent with the loose temporal constraints;
and

all of the plurality of execution orders do not provide the same specific temporal constraints on the plurality of events, but all of the plurality of execution orders are based on the loose temporal constraints.

8. (Currently Amended) An interactive computer-implemented system for specifying and executing temporal order events, comprising a processor executing:

a display component that provides a plurality of object workspaces, wherein the workspaces are user interfaces including a past, present and future space, wherein the present space is an editable area, and wherein the past and future space specify temporal constraints associated with a plurality of events;

a design component that temporally associates and disassociate objects in the editable area, wherein the design component receives, from a user, loose temporal constraints governing event execution orders, wherein the loose temporal constraints specify relative timing information but not exact literal times that each of the plurality of events is to be executed; and

an order component that determines a plurality of event execution orders, wherein:

each of the plurality of event execution orders is consistent with the loose temporal constraints supplied by the user;

each of the plurality of execution orders provides a sequence by which the plurality of events could be executed in accordance with the loose temporal constraints;

each of the plurality of execution orders specifies exact literal times each of the plurality of events is executed;

the exact literal times are consistent with the loose temporal constraints;

all of the plurality of execution orders do not provide the same specific temporal constraints on the plurality of events, but all of the plurality of execution orders are based on the loose temporal constraints; and

the order component selects an optimal event execution order from the plurality of event execution orders in accordance with execution system information.

27. (Currently Amended) A computer-implemented method for specifying and executing temporal order events comprising the following computer executable instructions stored on a tangible computer readable medium:

receiving, from a user, loose temporal constraints associated with a plurality of events, wherein the loose temporal constraints specify information about execution of the plurality of events, and wherein the loose temporal constraints do not specify exact literal times that that each of the plurality of events is to be executed;

receiving execution system information comprising one or more of available memory, cache coherency, data throughput or number of processors;

generating a plurality of execution orders for the plurality of events in accordance with the loose temporal constraints, wherein:

each of the plurality of event execution orders is consistent with the loose temporal constraints supplied by the user;

each of the plurality of execution orders specifies exact literal times each of the plurality of events is executed;

the exact literal times are consistent with the loose temporal constraints;
and

all of the plurality of execution orders do not provide the same specific temporal constraints on the plurality of events, but all of the plurality of execution orders are based on the loose temporal constraints and on the execution system information;

selecting an optimal event order based in part on the system execution information;

outputting the optimal event execution order.

29. (Currently Amended) A method, comprising:

storing, in a memory communicatively coupled to a processor, computer-executable instructions for performing the method, wherein the method orders events to be executed by an execution system;

executing the instructions on the processor;

according to the instructions being executed:

receiving object data associated with events from a workspace including at least one of a past, present, or future area;

associating objects temporally based at least in part upon relative object locations;

generating a plurality of execution orders based at least on the temporal association of the objects;

wherein the received object data is from a user, and comprises loose temporal constraints associated with a plurality of events, wherein the loose temporal constraints specify information about execution of the plurality of events, and wherein the loose temporal constraints do not specify exact literal times that ~~that~~ each of the plurality of events is to be executed;

receiving execution system information comprising one or more of available memory, cache coherency, data throughput or number of processors;

generating a plurality of execution orders for the plurality of events in accordance with the constraints, wherein:

each of the plurality of event execution orders is consistent with the loose temporal constraints supplied by the user;

each of the plurality of execution orders specifies exact literal times each of the plurality of events is executed;

the exact literal times are consistent with the loose temporal constraints;
and

all of the plurality of execution orders do not provide the same specific temporal constraints on the plurality of events, but all of the plurality of execution orders are based on the loose temporal constraints;
selecting an execution order of events from the plurality of event execution orders based at least on information comprising available memory, cache coherency, data throughput and number of processors.

Examiner's Statement Reason(s) for Allowance

5. The following is an examiner's statement of reasons for allowance:
6. Connelly et al. (U.S. Patent No. 7,376,733) and Eatough (U.S. Publication No. 2002/0087623) taken alone or in combination fail to teach "wherein the loose temporal constraints specify relative timing information but not exact literal times that each of the plurality of events is to be executed, generating a plurality of execution orders for the plurality of events in accordance with the constraints, wherein each of the plurality of events execution order is consistent with the loose temporal constraints supplied by the user, and all of the plurality of execution orders do not provide the same specific temporal constraints on the plurality of events, but all of the plurality of execution orders are based on the loose temporal constraints" as recited in the independent claims.

7. Harmon et al. (U.S. Patent 5,563,994) teaches the loose temporal constraints specify relative timing information but not exact literal times that each of the plurality of events is to be executed (col. 1:60-64). However, Harmon et al. fails to teaches generating a plurality of execution orders for the plurality of events in accordance with the constraints, wherein each of the plurality of events execution order is consistent with the loose temporal constraints supplied by the user and all of the plurality of execution orders do not provide the same specific temporal constraints on the plurality of events, but all of the plurality of execution orders are based on the loose temporal constraints as recited in the independent claims.

8. Therefore, it would not have been obvious to combine Connelly, Eatough and Harmon et al. to obtain the claimed invention. The claims are allowed over the prior arts.

9. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phillip H. Nguyen whose telephone number is (571) 270-1070. The examiner can normally be reached on Monday - Thursday 10:00 AM - 3:00 PM EST.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Y. Zhen can be reached on (571) 272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PN
10/29/2009
/Wei Y Zhen/
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